

# Product Specifications For 777 (05)



## Operating Specifications

<b>Target Payload (100%)</b>	98.2 t
<b>Top Speed - Loaded</b>	67.1 km/h
<b>Maximum Working Payload (110%)</b>	108032 kg
<b>Not to Exceed Payload (120%)</b>	117853 kg
<b>Note</b>	Empty Operating weights may vary based on the machine configuration
<b>Note (1)</b>	Capacity with Dual slope body without liner
<b>Note (2)</b>	Refer to Caterpillar 10/10/20 Payload Policy for maximum gross vehicle weight limitations

## Engine

<b>Engine Model</b>	Cat® C32B
<b>Engine Speed</b>	1800 r/min
<b>Gross Power - SAE J1995:2014</b>	765 kW
<b>Net Power - SAE J1349:2011</b>	711 kW
<b>Net Torque</b>	5130 N·m
<b>Net Torque Rise</b>	36%
<b>Cylinders</b>	12

<b>Bore</b>	145 mm
<b>Stroke</b>	162 mm
<b>Displacement</b>	32.1 l
<b>Emissions (1)</b>	Meets U.S. EPA Tier 2 Equivalent emission standards.
<b>Engine Power - ISO 14396:2002</b>	752 kW
<b>Emissions (2)</b>	Certified for China Nonroad Stage III emission standards.
<b>Note (1)</b>	Net power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator with engine speed at 1,800 rpm. Power rating applies at 1,800 rpm when tested under the specified condition for the specified standard.
<b>Note (2)</b>	Ratings based on SAE J1995 standard air conditions of 25° C (77° F) and 100 kPa (29.61 Hg) barometer. Power based on fuel having API gravity of 35 at 16° C (60° F) and an LHV of 42 780 kJ/kg (18,390 BTU/lb) when engine used at 30° C (86° F).
<b>Note (3)</b>	No engine derating required up to 3048 m (10,000 ft) altitude.

## Transmission

<b>Forward - 1</b>	10.9 km/h
<b>Forward - 2</b>	14.8 km/h
<b>Forward - 3</b>	20.1 km/h
<b>Forward - 4</b>	27.1 km/h
<b>Forward - 5</b>	36.8 km/h
<b>Forward - 6</b>	49.4 km/h
<b>Forward - 7</b>	67.1 km/h

Reverse - 1	12.1 km/h
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**Note** Maximum travel speeds with standard 27.00R49 (E4) tires.

## Final Drives

Differential Ratio	2.74:1
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Planetary Ratio	7.00:1
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Total Reduction Ratio	19.16:1
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## Brakes

Brake Surface Area - Front Caliper	2787 cm <sup>2</sup>
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Brake Surface Area - Front OCDB	40225 cm <sup>2</sup>
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Brake Surface Area - Rear	102116 cm <sup>2</sup>
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Brake Standards	ISO 3450:2011
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## Body Hoists

Body Raise Time - High Idle	15 s
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Body Lower Time - Float	13 s
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Body Lower Time - High Idle	13 s
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## Capacity - Dual Slope - 100% Fill Factor

Struck	41.9 m <sup>3</sup>
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Heaped 2:1 (SAE)	60.1 m <sup>3</sup>
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**Note (1)** Contact your local Cat dealer for body recommendation

## Capacity - Flat Floor - 100% Fill Factor

<b>Struck</b>	43.1 m <sup>3</sup>
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<b>Heaped 2:1 (SAE)</b>	64.1 m <sup>3</sup>
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**Note (1)** Contact your local Cat dealer for body recommendation.

## Service Refill Capacities

<b>Fuel Tank</b>	1140 l
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<b>Cooling System</b>	212 l
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<b>Crankcase</b>	115 l
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<b>Differentials</b>	222 l
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<b>Final Drive - Each</b>	42 l
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<b>Steering System - Includes Tank</b>	60 l
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<b>Brake Hoist System</b>	420 l
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<b>Torque Converter - Transmission System</b>	125 l
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## Steering

<b>Steering Standards</b>	ISO 5010:2007
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<b>Steer Angle</b>	30.5°
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<b>Turning Diameter - Front</b>	25.3 m
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<b>Turning Circle - Clearance Diameter</b>	28.4 m
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## Approximate Weights - Dual Slope

<b>Body</b>	16070 kg
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<b>Empty Vehicle</b>	65149 kg
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<b>Gross Vehicle</b>	163360 kg
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<b>Chassis</b>	49079 kg
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<b>Body with Standard Liner</b>	21665 kg
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## Weight Distributions - Approximate

<b>Rear Axle - Empty/Loaded</b>	54% / 70%
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<b>Front Axle - Empty/Loaded</b>	46% / 30%
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## Suspension

<b>Effective Cylinder Stroke - Rear</b>	165 mm
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<b>Effective Cylinder Stroke - Front</b>	318 mm
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<b>Rear Axle - Oscillation</b>	5.4°
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## Tires

<b>Standard Tire</b>	27.00R49 (E4)
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**Note (1)** Productive capabilities of the 777 truck are such that, under certain job conditions, TKPH (TMPH) capabilities of standard or optional tires could be exceeded and, therefore, limit production.

**Note (2)** Caterpillar recommends the customer evaluate all job conditions and consult the tire manufacturer for proper tire selection.

## ROPS

<b>ROPS</b>	ROPS (Rollover Protective Structure) cab offered by Caterpillar meets ISO 3471:2008 for Operator and ISO 13459:2012 for Trainer.
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<b>FOPS</b>	FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 for Operator and ISO 13459:2012 Level II FOPS criteria for Trainer.
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## Sound

**Note (1)**

The dynamic operator sound pressure level is 80 dB(A) as per ISO 6396:2008 for cab offered by Caterpillar. The cab was properly installed and maintained. The test was conducted with the cab doors and the cab windows closed.

**Sound Standards**

ISO 6396:2008

## Dimensions (Approximate) - Dual Slope

<b>Loading Height - Empty</b>	4380 mm
<b>Dump Clearance</b>	890 mm
<b>Overall Height - Body Raised</b>	9953 mm
<b>Front Canopy Height - Loaded</b>	5177 mm
<b>Height - Top of ROPS - Loaded</b>	4730 mm
<b>Overall Body Length</b>	9555 mm
<b>Centerline Front Tire Width</b>	4163 mm
<b>Operating Width</b>	6545 mm
<b>Inside Body Length</b>	6920 mm
<b>Inside Body Width</b>	5197 mm
<b>Wheel Base</b>	4570 mm
<b>Overall Tire Width</b>	5262 mm
<b>Overall Canopy Width</b>	6200 mm
<b>Ground Clearance</b>	896 mm
<b>Overall Length</b>	10004 mm

<b>Rear Axle - Clearance</b>	902 mm
<b>Rear Axle - Tail</b>	3045 mm
<b>Outside Body Width</b>	5524 mm
<b>Inside Body Depth - Maximum</b>	1895 mm
<b>Centerline of Rear Dual Tire Width</b>	3576 mm
<b>Overall Front Tire Width</b>	4961 mm
<b>Operating Width - Extended Catwalk</b>	6545 mm
<b>Engine Guard Clearance</b>	864 mm

## 777 (05) Standard Equipment

### NOTE

Standard and optional equipment may vary. Consult your Cat dealer for details.

### POWER TRAIN

Engine idle shutdown  
 Air-to-air aftercooler (ATAAC)  
 Air cleaner with precleaner (2)  
 Automatic cold mode idle control  
 Electric priming pump  
 Two starters and four batteries  
 Fuel filter/water separator  
 Turbocharger (2)  
 Braking system  
 Oil cooled, multiple disc (rear)  
 Parking  
 Secondary  
 Caliper disc (front)  
 Manual retarder (utilizes rear oil cooled, multiple disc brakes)  
 Brake release motor (towing)  
 Body up shift inhibitor  
 Controlled throttle shifting  
 Directional shift management  
 Downshift inhibitor  
 Neutral start switch

Neutral coast inhibitor  
Reverse shift inhibitor  
Reverse neutralizer during dumping  
Programmable top gear selection

## **SUSPENSION SYSTEMS**

Hydro pneumatic suspension  
Front and rear

## **ELECTRICAL**

Alarm, backup  
Alternator, 145 amp  
Auxiliary jump start receptacle  
Batteries, maintenance-free, 12V (4), 190 amp-hour  
Electrical system, 10 amp, 24V to 12V converter  
MineStar™ ready  
Backup light, halogen  
Directional signals/hazard warning  
Front and rear, LED  
Headlights, halogen, with dimmer  
Operator access courtesy lights  
Stop/tail lights, LED

## **OPERATOR ENVIRONMENT**

HVAC  
Ashtray and cigarette lighter  
Coat hook  
Diagnostic connection port  
Entertainment radio ready  
Speakers, antenna, wiring harness  
Air cleaner service indicator  
Transmission oil temperature gauge  
Air system pressure gauge  
Brake oil temperature gauge  
Coolant temperature gauge  
Hour meter  
Tachometer  
Engine overspeed indicator  
Fuel level, gauge  
Speedometer with odometer  
Transmission gear indicator  
Hoist lever  
Horn  
Load counter, automatic  
Mirrors, left and right  
ROPS cab, insulated/sound suppressed  
Seat, Caterpillar comfort, full air suspension and retractable four point seat belt with shoulder harness

Seat, trainer with lap belt  
Steering wheel, padded/tilt/telescopic  
Storage compartment  
Sun visor  
Throttle lock  
Right side access door  
Left side power window  
Windshield wiper, intermittent, and washer  
Tinted, laminated glass

## **GUARDS**

Engine crankcase  
Driveline, operator safety vandalism protection lock

## **FLUIDS**

Extended life coolant to  $-35^{\circ}\text{C}$  ( $-30^{\circ}\text{F}$ )

## **OTHER STANDARD EQUIPMENT**

Airline dryer  
Body mounting group  
Body safety pin (secures body in up position)  
Body down indicator  
CD ROM parts book  
Center mounted rims  
Ground level battery disconnect  
Ground level engine shutdown  
Ground level grease fittings  
Reservoirs  
Transmission  
Steering  
Brake, converter and hoist  
Rims 19.5 × 49  
Rock ejectors  
Supplemental steering, automatic  
Tie down eyes  
Tow hooks (front)/tow pin (rear)